NECAP SCIENCE 2008 GRADE 8 RELEASE ITEMS ALIGNMENT

Item #	GE Connection	Target Code	Domain	Target	Depth of Knowledge
1	S5-6: 9; S7-8: 9	PS1.1 INQ	Physical Science	Students will investigate the relationships among mass, volume, and density.	**2**
2	S7-8:12	PS1.4 SAE, MAS	Physical Science	Students will represent or explain the relationship between or among energy, molecular motion, temperature, and states of matter.	**1**
3	S5-6: 19, 20; S7-8: 19	PS3.8 INQ, POC	Physical Science	Students will use data to determine or predict the overall net effect of multiple forces (e.g. friction, gravitational, magnetic) on the position, speed, and direction of motion of objects.	**2**
4	S5-6: 48; S7-8: 48	ESS1.2 SAE	Earth/Space Science	Students will explain the processes that cause the cycling of water into and out of the atmosphere and their connections to our planet's weather patterns.	**2**
5	S5-6: 46	ESS1.5 INQ, POC	Earth/Space Science	Students will, using data bout a rock's physical characteristics, make and support an inference about the rock's history and connection to rock cycle.	**1**
6	S5-6: 45; S7-8: 44	ESS 2.7 NOS	Earth/Space Science	Students will explain how technological advances have allowed scientists to re-evaluate or extend existing ideas about the solar system.	**2**
7	S5-6: 35; S7-8: 36	LS 1.1 INQ, SAE	Life Science	Students will, using data and observation about the biodiversity of an ecosystem, make predictions or draw conclusions about how the diversity contributes to the stability of the ecosystem.	**3**
8	S5-6: 40; S7-8: 40	LS1.3 POC	Life Science	Students will compare and contrast sexual reproduction with asexual reproduction.	**2**
9	S5-6: 34, 36; S7-8: 33, 34, 36	LS 2.6 SAE	Life Science	Students will, given a scenario, trace the flow of energy through an ecosystem, beginning with the sun, through organisms in the food web, and into the environment (includes photosynthesis and respiration).	**2**
10	S5-6:32	LS 1.2 SAE, FAF	Life Science	Students will describe or compare how different organisms have mechanisms that work in a coordinated way to obtain energy, grow, move, respond, provide defense, enable reproduction, or maintain internal balance.	**2**
11	S5-6:5; S7-8:5	INQ 3.8	Inquiry	Use accepted methods for organizing, representing, and manipulating data.	**2**
12	S5-6: 4; S7-8: 4	INQ 3.7	Inquiry	Follow procedures for collecting and recording qualitative or quantitative data, using equipment or measurement devices accurately (Follow multi-step procedures; make observations).	**2**
13	S5-6: 7; S5-6: 7	INQ 4.12	Inquiry	Use evidence to support and justify interpretations and conclusions or explain how the evidence refutes the hypothesis.	**3**
14	S5-6: 4: S7-8: 4	INQ 2.6	Inquiry	Provide reasoning for appropriateness of materials, tools, procedures, and scale used in the investigation.	**2**
15	S5-6: 4: S7-8: 4	INQ 2.6	Inquiry	Provide reasoning for appropriateness of materials, tools, procedures, and scale used in the investigation.	**2**
16	S5-6: 7-8; S7-8: 7-8	INQ 4.13	Inquiry	Communicate how scientific knowledge applies to explain results, propose further investigations, or construct and analyze alternative explanations.	**3**
17	S5-6: 7-8; S7-8: 7-8	INQ 4.13	Inquiry	Communicate how scientific knowledge applies to explain results, propose further investigations, or construct and analyze alternative explanations.	**3**